



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10**

1200 Sixth Avenue, Suite 155
Seattle, WA 98101

June 10, 2022

REGIONAL
ADMINISTRATOR'S
DIVISION

U.S. Army Corps of Engineers
Portland District
Attn: Ms. Kate Mott
P.O. Box 2946
Portland, Oregon 97208-2946

Dear Kate Mott:

The U.S. Environmental Protection Agency has reviewed the US Army Corps of Engineer's Notice of Intent to Prepare an Environmental Impact Statement for the NEXT Renewable Fuels Oregon Project, Columbia County, Oregon (EPA Project Number 22-0011-USACE). EPA is a Cooperating Agency on this project. EPA has conducted its review pursuant to the National Environmental Policy Act and our review authority under Section 309 of the Clean Air Act. The CAA Section 309 role is unique to EPA and requires EPA to review and comment publicly on any proposed federal action subject to NEPA's environmental impact statement requirement.

The NOI describes the proposed construction of a manufacturing facility for renewable diesel, naphtha, and jet fuel located at the Port of Columbia County's Port Westward Industrial Park in Clatskanie. The proposed facility would receive, and process recycled organic materials and raw oil feedstocks (e.g., cooking oil, vegetable oils and animal fats) into renewable fuel products. Renewable fuel products will be shipped offsite via pipelines, trucks, and railcars. The project proponent expects to initially produce 37,500 barrels (1.58 million gallons) a day and anticipates producing more than 50,000 barrels (2.1 million gallons) a day at full capacity.

Enclosed are EPA's recommendations for topics to be analyzed in preparing the Draft Environmental Impact Statement. Relatedly, on December 3, 2021, EPA submitted comments to the U.S. Army Corps of Engineers for compliance with restriction on discharge contained in the Clean Water Act Section 404(b)(1) guidelines. These comments contain substantive criteria for the evaluation of proposed discharges of dredged or fill material into waters of the U.S., and EPA recommends these criteria be addressed and analyzed when developing the EIS.

Thank you for the opportunity to comment on the NOI for this project. If you have questions about this review, please contact Lauren Boldrick of my staff at (907) 271-5097 and boldrick.lauren@epa.gov, or me, at (206) 553-1774 or at chu.rebecca@epa.gov.

Sincerely,

Rebecca Chu, Chief
Policy and Environmental Review Branch

Enclosure

**U.S. EPA Detailed Comments on the
NEXT Renewable Fuels Oregon Project NOI
Columbia County, Oregon
June 2022**

Impacts Analysis

EPA recommends the EIS describe the scale it uses to categorize the extent of potential impacts to specific resources. Consider the context and intensity of the impact based on four parameters: detectability, duration (i.e., short-term, or long-lasting), spatial extent (i.e., localized, or widespread), and magnitude (i.e., less than severe or severe, where the term “severe” refers to impacts with a clear, long-lasting change in the resource’s function in the ecosystem or cultural context). EPA recommends that the EIS transparently account for how subject matter experts applied these criteria to categorize impacts to resources. Including a breakdown for each resource and stressor/impact and applying the parameters to demonstrate how the resources were assigned a category including negligible, minor, moderate, and major, would increase transparency for the public’s understanding.

Purpose and Need

EPA recommends the EIS discuss how the public’s need for energy services (e.g., electricity generation and/or transportation fuels) would be met with and without the project. In particular, the EIS should evaluate the extent to which existing renewable and fossil fuel energy facilities at current production levels are able to supply regional users’ current and future needs. Clearly discuss the project’s ability to meet future local and regional energy needs, along with other proposed renewable energy and fossil fuel projects (i.e., those that have permit applications in queue with the State of Oregon and the U.S. Government), along with relative consistency or inconsistency with national and state environmental goals and policies. This aggregate assessment will support a clear determination of the project’s necessity for the regional energy consumers.

This information will further enable USACE, and the public, to understand what projects and associated facilities should be prioritized for development. The analysis will inform how future decision-making best aligns with the USACE’s statutory authorities and policies with respect to greenhouse gas emission mitigation. EPA recommends development of this valuable information for the public and decision-makers, consistent with CEQ’s current position, as expressed in the preamble to their October 7, 2021, notice of proposed rulemaking.¹

Scope of Assessment

Reasonably Foreseeable Impacts

Reasonably foreseeable impacts are required to be analyzed in the EIS. In particular, EPA recommends including a discussion of reasonably foreseeable effects that changes in the climate may have on the proposed project, and what impacts the proposed project will have on climate change consequences. These considerations could help inform the development of measures to improve the resilience of the project.

Indirect Impacts

In the EIS, include and describe all indirect impacts (i.e., project effects that would not or could not occur except for the implementation of a project).

Cumulative Impacts

Cumulative impact analyses describe the threat to resources as a whole, presented from the perspective of the resource instead of from the individual project. Cumulative impacts can result from individually minor, but collectively significant, actions taking place over a period of time. Discussions of cumulative impacts are usually more effective when included in the larger discussion of environmental impacts from the action (the environmental consequences chapter), as opposed to discussing cumulative impact analyses in a separate chapter.

In the cumulative impacts analysis, identify how resources, ecosystems, and communities in the vicinity of the project have already been, or will be, affected by past, present, or future activities in the project area. Characterize these resources in terms of their response to change and capacity to withstand stresses. EPA recommends utilizing trends data to establish a baseline for the affected resources, evaluate the significance of historical degradation, and predict the environmental effects of the project components.

EPA advises focusing on resources of concern or resources that are “at risk” and/or are significantly impacted by the proposed project before mitigation. For this project, it is recommended that a thorough assessment of the cumulative impacts to water flows, temperature and dissolved oxygen, sediment, pH, ammonia, and nutrient concentrations be conducted.

EPA recommends that the EIS identify which resources are analyzed, which ones are not, and why. For each resource analyzed, we recommend including the following:

- Identify the current condition of the resource as a measure of past impacts.
- Identify the trend in the condition of the resource as a measure of present impacts. For example, the health of the resource is improving, declining, or in stasis.
- Identify all on-going, planned, and reasonably foreseeable projects in the study areas which may contribute to cumulative impacts.
- Identify the future condition of the resource based on an analysis of impacts from reasonably foreseeable projects or actions added to existing conditions and current trends.
- Assess the cumulative impacts contribution of the proposed alternatives to the long-term health of the resource and provide a specific measure for the projected impact from the proposed alternatives.

In the EIS, consider the cumulative impacts associated with other projects proposed in the area and the potential impacts on various resources including water supply, endangered species, and habitat. We advise quantifying cumulative impacts across resources areas, as well as describing and evaluating practicable mitigation measures to avoid and minimize the identified adverse cumulative impacts.

Alternatives Analysis

EPA recommends exploring and objectively considering a full range of alternatives and evaluating in detail all reasonable alternatives that fulfill the project’s purpose and need. We encourage selection of alternatives that protect, restore, and enhance the environment, and support efforts to identify and select alternatives that maximize environmental benefits that avoid, minimize, and/or otherwise mitigate environmental impacts.

In the EIS, present the environmental impacts of the proposed action and alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public. Describe how each alternative was developed, how it addresses project objectives, how it will be implemented, and quantify the potential environmental impacts of each

alternative to the greatest extent (e.g., acres of habitat impacted; change in water quality). EPA recommends comparing the costs and benefits of each of the alternatives, including the costs for required mitigation measures. Further, discuss the reasons for eliminating alternatives to the proposed action.

The No Action Alternative should consider and evaluate non-project related alternatives that satisfy the ultimate need for the project, specifically the energy services that would be provided by the delivered fuel (e.g., electricity generation and/or transportation). In 2020, the State of Oregon established GHG reduction goals for 2035 and 2050, at 45% and 80% respectively. A meaningful evaluation of alternatives should also explore other means of providing energy services in the locations and quantities that the proposed facility's products would fulfill.

EPA advises that the EIS analyze an alternative (or sub-alternatives) that evaluates different scenarios for likely biomass supply mixes and sources in order to analyze upstream environmental impacts of renewable fuels production. EPA finds it important to make conservative assumptions on biomass supply availability, while understanding that exact future biomass sources and availability cannot be accurately predicted or modeled. However, due to the potential impacts of climate change to local and regional economies, for the continued success of the proposed facility, it is important to ensure that the proposed project is able to be resilient and adaptable to logistical and economic changes that may impact biomass supply chains.

Air Quality

EPA recommends that the EIS include a quantitative air quality analysis of the proposed facility. The EIS should clearly disclose whether or not the proposed project would cause ambient conditions to exceed a National Ambient Air Quality Standard (NAAQS), an Oregon air quality standard, or an air quality related value threshold.

It should be clearly disclosed whether facility-related air emissions may result in levels of exposure that are unsafe for vulnerable populations/communities with environmental justice (EJ) concerns located near the proposed facility (e.g., Longview, Washington). We recommend that this potential for localized human health impacts to sensitive populations be evaluated in the EIS as part of the cumulative analysis. EPA provides more substantive recommendations for identifying communities with environmental justice concerns, engaging with these affected communities throughout the EIS process, and assessing environmental impacts to communities with EJ concerns in the "Environmental Justice" section of this document.

EPA recommends coordinating with Oregon Department of Environmental Quality to determine the applicability of stationary source rules that may apply to chemical process units including:

- New Source Performance Standards (40 CFR part 60)
- Subpart NNN, Standards of Performance for Volatile Organic Compounds (VOC) Emissions from Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations
- Subpart RRR, Standards of Performance for VOC Emissions from SOCMI Reactor Processes
- National Emission Standards for Hazardous Air Pollutants (40 CFR part 63)
- National Emission Standards for Organic Hazardous Air Pollutants from the Synthetic Organic Chemical Manufacturing Industry (subparts F, G, H, and I)

Toxic Substances

EPA recommends that the EIS disclose how the produced products are classified according to the Toxic Substances Control Act (TSCA) Inventory, for the purposes of disclosing potential spill or emission

sources. Biodiesels often vary with the source, and most biodiesels are processed in a way that they do not fit the “naturally occurring” criterion of the TSCA Inventory. Some biodiesels will be made using techniques, such as metabolic engineering, that require the use of intergeneric microbes, thus making the microbes subject to TSCA. Biodiesels generally would fit a classification called UVCB, or “Unknown or Variable compositions, Complex reaction products and Biological materials.”

Substances on the TSCA Inventory are divided into two classes for ease of identification:

- Class 1 substances are those single compounds composed of molecules with particular atoms arranged in a definite, known structure. Examples of Class 1 substances include: acetone, iron, benzene and dimethylmercury. These substances have discrete molecular formulas and fully defined structural diagrams.²
- Many commercial substances that are subject to TSCA are not Class 1 substances. They may have unknown or variable compositions or be composed of a complex combination of different molecules. These are designated Class 2 substances.³

Climate Change

EPA recommends including the following information be included in the EIS:

- Analysis that focuses on the potential for changing climatic conditions, that may impact operations and maintenance of the proposed facility and associated infrastructure in the future.
- Assessment of the extent to which the proposed project is consistent with U.S. and global policy to limit GHG emissions.
- Identification of how climate resiliency has been considered in the proposed action and alternatives.
- Assessment of the additive and synergistic impacts of climate change upon local natural resources, such as seasonal water patterns and wildfires, to the proposed facilities.
- Evaluating and identifying mechanisms to address the proposed project’s climate change impacts in the context of environmental justice and human health— such reduced methane emissions.

EPA advises that the project’s climate change evaluations incorporate recent peer-reviewed science (e.g. the Sixth Assessment Report (AR6), *Climate Change 2021: The Physical Science Basis*, issued by the Intergovernmental Panel on Climate Change (IPCC) and review of the U.S. Global Change Research Program’s (USGCRP) Fourth National Climate Assessment Report (NCA4)).

EPA notes that the Northwest chapter of the NCA4 Report describes regional climate models predictions of increases of 0% to 20% in extreme daily precipitation, depending on location and definition of “extreme” (for example, annual wettest day). Averaged over the region, the number of days with more than one inch of precipitation is projected to increase 13% in 2041 to 2070 compared with 1971 to 2000 under a scenario that assumes a continuation of current rising emissions trends. This increase in heavy downpours could increase flood risk in mixed rain-snow and rain-dominant basins and increase stormwater management challenges for infrastructure. Infrastructure designed for historical climate trends is more vulnerable to future weather extremes and climate change. In consideration of these predicted changes, the proximity of the proposed project to the Columbia River, and the project operations utilizing the river for transport, EPA recommends the EIS consider the potential impacts of flooding along the Columbia River. As this project will also rely on marine transport, climate impacts related to the marine shipping route should also be considered.

EPA recommends the EIS prioritize the analyses of climate adaptation and resilience for the proposed facility and its operations due to its long-lived nature. Considering potential climate change impacts

ensures that investments made today continue to function and provide benefits, even as the climate changes. EPA advises that EIS describe how climate resiliency has been considered in the design of the proposed action and alternatives, and any other related measures that may be appropriate.

Greenhouse Gas Emissions

EPA recommends including the following information in the EIS:

- Include construction and operational GHG emissions in carbon dioxide equivalents (CO₂e).
- Quantify all upstream and downstream GHG emissions associated with the proposed action in carbon dioxide equivalents (CO₂e).
- Disclose all potential mitigation measures that have been considered to avoid and minimize impacts related to GHG emissions from the proposed action.

Federal agencies have a legal obligation to consider direct and indirect impacts of the lifecycle emissions caused by production, processing, transportation, and consumption of the biofuels created at the proposed facility. EPA notes that the National Renewables Energy Laboratory has developed a rapid air emission estimation tool for feedstock production and harvest—the Feedstock Production Emission to Air Model (F-PEAM). F-PEAM is used to inventory the air pollutant emissions of large-scale biomass production, harvest or gathering, and transport processes that eventually deliver biomass to biofuel conversion facilities (biorefineries).⁴ Upstream emissions from that production are demonstrably reasonably foreseeable indirect effects of the proposed action and therefore should be considered under NEPA. Omitting consideration of upstream emissions results in an underestimation of the proposal's impacts. EPA notes that these upstream emissions may be incorporated by reference, by acknowledging the evaluations associated with the different sources of biomass supply.

EPA offers that our **Center for Corporate Climate Leadership** serves as a resource center for all organizations looking to expand their work in the area of GHG measurement and management. Information is available that provides guidance on the inventorying of GHG emissions, measurements, and supply chain analysis.

Geology and Soils

EPA recommends the EIS discuss the baseline geologic information from geologic, seismic, and geotechnical data for the proposed facility site, and the surrounding area. The geological assessment should include:

- Regional topographic and geologic setting. Discuss varieties of rocks, minerals, fossils, soils and landforms and the natural processes that shape the local landscapes.
- Site specific subsurface geologic formations. Due to the regional seismicity, identifying the type of rock and its geological structures, particularly local geomechanical or structural discontinuities, may be important to understanding new potential design risks.
- Paleontological resources. Analysis of existing data and clarify the possibility of disturbing fossil-yielding alluvium or bedrock that is near to the surface and may yield paleontological resources. Describe in the EIS how any fossil finds will be addressed (e.g., reported to the state Department of Natural Resources).
- Cultural resources. Analyze the potential to encounter prehistoric or historic resources at the project sites. Describe in the EIS how prehistoric and/or historic discoveries will be addressed (e.g., reported to the respective State Historic Preservation Officer).
- Soils. Include soils assessments of sufficient detail to provide for appropriate geotechnical evaluations to be conducted to support the geohazards analysis.

- **Local Hazardous Wastes.** Construction activities may accidentally exposure hazardous waste sites. EPA's Cleanups in My Community (CIMC)⁵ allows for mapping and listings of hazardous waste cleanup locations in near proximity to the proposed facility site.

EPA recommends the EIS include site-specific geological analysis to ensure the integrity of the site soils at Port Westward, where the proposed facility will be constructed. The information can be utilized to support design choices described in the document, such as the type of structural foundations, erosion control, grading practices and other site-specific issues (i.e., shallow groundwater or corrosive potential).

EPA recommends analyzing impacts of soil compaction due to earth-moving, soil stockpiling, equipment staging, or construction in the environmental evaluation. Specifically, consider impacts of soil compaction on soil productivity and plant re-growth rates, susceptibility to erosion, and alterations to natural drainage patterns. EPA recommends the EIS describe mitigation for the impacts associated with soils compaction e.g., encouraging regrowth for areas with low revegetation potential, incorporating compost or manure in topsoil to recover to full productivity. EPA also recommends the EIS include steps to avoid identified impacts following the soil compaction analysis throughout the construction process, e.g., utilize low-ground-pressure construction equipment and stopping work when soils are wet and most susceptible to compactive forces. There are many successful techniques to reestablish healthy soils after construction and will be site-dependent based on soil type.

When evaluating the local hazardous wastes include in the EIS information for how response will occur in the event of inadvertent spills or other contaminants releases (e.g., accidental release of petroleum hydrocarbons, equipment fuels or other materials during construction).

Geohazards

EPA recommends that the EIS include an analysis of reasonable geohazards in Columbia County, Oregon that may impact the proposed project and its facilities. This geohazard analysis may include discussion of local:

- seismic hazards, such as ground shaking, fault rupture, liquefaction, flow failures and lateral spreading or associated secondary effects.
- hydrologic processes, such as flooding, vertical scour of river bottoms, channel migration and bank erosion, channel avulsion, rapid lake drainage.
- surface (overland), trench backfill, or earthwork fill erosion.
- land subsidence and/or sinkhole formation, whether naturally occurring such as from dissolution of salt or carbonate rock formations (karst formation) or human caused, such as from underground mining or withdrawal of subsurface fluids.

There are many observable geohazards derived through site geological and geotechnical testing, such as the soil liquefaction potential in certain areas (i.e., areas with cohesionless soil materials and high groundwater table). However, in locations with high seismicity, there exist some earthquake-related geohazards the intensity of which depend on the seismicity of the proposed site's location and the local site conditions (i.e., topographical, geomorphological, geological, geotechnical, etc). EPA recommends the EIS include a quantitative assessment to quantify the impacts of the strong ground motion and the potential induced permanent ground deformations on the proposed new facility components, particularly the above ground piping and its structural support systems.⁸

In tandem with the Geology and Soils analysis, it may be helpful to incorporate the Modified Mercalli Scale of Earthquake Intensities which presents clear descriptions for the public to understand the

potential damage to project's proposed infrastructure. This information should also inform spill response planning and implementation strategies.

Water resources and Wetlands

EPA recommends that the EIS identifies best management practices for sediment and erosion control plans and post-construction stormwater management to prevent pollutants and reduce runoff be implemented during construction, as well as in-stream monitoring up and downstream of the proposed facility site. If there will be significant adverse impacts to a nearby waterbody, EPA recommends the EIS include describing mechanisms to mitigate those impacts, e.g., develop restoration plans to mitigate temporary impacts to streams and other waterbodies and to ensure a timely return to baseline conditions.

Increased water use for facilities

As facility pipelines and/or piping will likely require pressure-testing before and/or during operation, EPA recommend the EIS evaluate the impacts associated with these processes. The hydrostatic testing used to meet integrity and other safety requirement requires significant volumes of water. EPA recommends that the EIS identify and describe any waterbodies that may be used as sources for hydrostatic testing, as well as estimates of the total volume of water required. EPA recommends recycling water used for hydrostatic testing to reduce total water use.

EPA also recommends in the EIS evaluate the use of Waste Heat Recovery technologies to increase operation efficiency through energy recovery and reduce overall water usage at the proposed facility. Possible sources of waste heat include engine exhaust gases, engine jacket water, engine lubricating oil, compressor cooling water as well as gas coolers at the facility.

Tribal Outreach and Cultural Resources

Tribes such as the Cowlitz Indian Tribe, Confederated Tribes of the Grand Ronde Community, Confederated Tribes of the Siletz Indians, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation, Nez Perce Tribe, and the Confederated Tribes and Bands of the Yakama Nation, may be interested in the proposed project and its location. EPA encourages USACE to consult with the Tribes and incorporate feedback from the Tribes when making decisions regarding the project. EPA advises the EIS clearly describe the issues raised during the consultations and how those issues were addressed.

Environmental Justice

Executive Order 12898 directs federal agencies to identify and address the disproportionately high and adverse human health on environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law. EO 13985 on *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government* should also be incorporated to USACE's analysis since it includes a modern definition of equity that clarifies a broader approach.

Assessing EJSCREEN information is a useful first step in understanding or highlighting locations that may be candidates for further review or outreach.⁶ EPA considers a project to be in an area of potential environmental justice (EJ) concern when an EJSCREEN analysis for the impacted area shows one or more of the eleven EJ Indexes at or above the 80th percentile in the nation and/or state. As a potential first step, EPA recommends an EJSCREEN analysis consider EJSCREEN information for the block group(s) which contains the proposed action and a one-mile radius around those areas. EPA notes that it may be helpful to utilize Washington's environmental Health disparities mapping tool given the proximity of the proposed facility to Washington State⁷.

It is important to consider all impacted areas by the proposed action. Areas of impact can be a single block group or span across several block groups and communities.⁸ When assessing large geographic areas, consider the individual block groups within the project area in addition to an area wide assessment. Important caveats and uncertainties apply to this screening-level information, especially in rural areas, so it is essential to understand the limitations on appropriate interpretations and applications of these indicators.⁹ As the screening tool does not provide data on every environmental impact and demographic factor that may be relevant to a particular location and/or proposed project, consider additional information in an EJ analysis to supplement EJSCREEN outputs.

Further review or outreach may be necessary for the proposed action. To address these potential concerns, EPA recommends:

- applying the "Environmental Justice Interagency Working Group Promising Practices for EJ Methodologies in NEPA Reviews" report, or the Promising Practices Report, to this project.¹⁰ The Promising Practices Report is a compilation of methodologies gleaned from current agency practices concerning the interface of EJ considerations through NEPA processes.
- characterizing project site(s) with specific information or data related to EJ concerns.¹¹
- describing potential EJ concerns for all EJ Indexes at or above the 80th percentile in the state and/or nation.
- describing block groups which contain the proposed action and at a minimum, a one-mile radius around those areas.
- describing individual block groups within the project area in addition to an area wide assessment.

In all cases where the lead agencies initial screening indicates that there is a potential for disproportionately high and adverse effects on low-income and/or minority communities, EPA recommends the lead agency make a concerted effort to identify stakeholders in the affected community and include them in their outreach efforts.

Source data, including historical, existing, and projected sources, yielding projected effects in concert with that from the resulting proposed action should be analyzed with respect to minority or low-income receptors. These include cultural, health and occupational-related variables such as:

- Health data reflective of the community (e.g., abnormal cancer rates, infant and childhood mortality, low birth weight rate, blood-lead levels).
- Occupational exposures to environmental stresses which may exceed those experienced by the general population.
- Diets, or differential patterns of consumption of natural resources, which may suggest increased exposure to environmental pathways presenting potential health risk.

As appropriate, Health Impact Assessments (HIAs) can provide agencies with important background data. Agencies may consider reaching out to entities both inside and outside the Federal government to seek their help in preparing HIAs as either part of or an addendum to the NEPA document.¹²

EPA recommends the EIS include information about the processes used to meaningfully engage with communities affected by the proposed project, issues raised by affected communities, and how those issues were addressed. EPA recommends that when establishing trust with all types of stakeholders, encourage active community participation, recognize community knowledge, and utilize cross-cultural formats and exchanges.

Threatened and Endangered species

The proposed project may impact federally and state protected species and their habitats. EPA recommends that EIS evaluation of the proposed project identify: the species in the project area and surrounding areas and their critical habitats; impacts the project will have on these resources (i.e., impacts to migratory species' habitats); and how the proposed project will meet all requirements under the Endangered Species Act, including consultation with the US Fish and Wildlife Service under Section 7 of the Endangered Species Act and NOAA's National Marine Fisheries Service. It will be important to coordinate with the Oregon Department of Fish and Wildlife to define construction, operations, and decommissioning practices that will be protective of biota and habitat during implementation of the project. Since a potential spill may impact the State of Washington, via its lands, waters, and biological resources, we encourage coordination with the Washington Department of Fish and Wildlife as well.

Odor Control

EPA recognizes that there are potential new sources of odor associated with the storage and processing of biomass associated with biofuels production. EPA recommends the EIS include an analysis of a potential odor impacts from facility operations (i.e., loading, unloading and storage) and odor management controls to address those impacts. Odor management controls including, but not limited to, carbon adsorption, incineration, biofilter use, and chemical scrubbing, all in conjunction with a vapor recovery system and nitrogen blanketing of storage tanks. These options are the most utilized odor control methods for biofuel production. EPA recommends the EIS describe mechanisms for impacted community members to notify the facility of odor impacts (e.g., complaints line) during operations in case this becomes a cause of concern for nearby communities.

Noise

EPA recommends that the EIS evaluate and address potential noise impacts of the proposed project, including:

- Describe how residents living in the vicinity of the proposed facility will be engaged throughout the planned construction activities and establish procedures for complaints investigation. This information may be included as an appendix.
- Describe a noise monitoring program. Consider establishing baseline noise before beginning construction and designing noise monitoring to assess impacts of noise to workers and adjacent communities in the vicinity of the project and to verify that actual noise levels do not exceed maximum predicted levels.
- Analyze the potential increase in noise associated with proposed facility and implement best practices for acoustic shielding (e.g., through strategic positioning of non-noise generating equipment) and other noise reduction techniques. These may include mufflers, enclosures, curtains, insulation, and vegetative barriers, and minimizing engine idling during construction and operation.

It is well documented that large industrial facilities, such as the proposed renewable fuels facility, produce mechanical noise and vibrations during operation. Daily operations (facility, road traffic, rail traffic) as well as construction have the potential to noise levels exceeding 60 dBA, exceeding the general protective criterion of 55 dBA. Chronic exposure to noise at this level is associated with adverse health outcomes, including sleep disturbance, hypertension, and cardiovascular disease. Commonly used construction equipment has the potential to generate noise well above 55 dBA, which has the potential to create cumulative impacts. The Federal Highway Administration Highway Construction Noise Handbook provides tables of noise estimates for common construction equipment.

Reliability and Safety

EPA recommends the EIS clearly describe the process chemistry and process safety strategies that will be implemented to be able to evaluate potential health and safety impacts, and potential catastrophic incidents that may, but are unlikely, to occur during operations. Include in the description what quantifies as minor, moderate, and major accidental releases of products used or produced by the facility. Identify major root causes of events that may cause incidents, particularly those associated with injuries and fatalities and describe how the proposed facilities will minimize that risk. Clearly discuss regular maintenance procedures, describing the occurrence and level of potential GHG or volatile organic compounds, that may occur.

EPA recommends the EIS describe the standard that will be used to cover the inspection, repair, alteration, and reconstruction of any underground and/or aboveground storage tanks that will be used at the proposed facility. Include this information for all other major components, such as pipelines, piping and major pieces of processing equipment that could be related to a major accident.

EPA advises the EIS describe how the community will be notified about the environmental impacts of the project throughout the project lifecycle, mechanisms in place to identify/address impacts, and in the event of an emergency (e.g., accidental release). EPA recommends ensuring that materials developed to communicate information about the environmental impacts of the project are transparent and clear (e.g., describe air quality impacts and ongoing monitoring associated with those impacts, etc.).

Waste Management

EPA recommends the EIS address the potential direct, indirect, and cumulative environmental impacts of hazardous and solid waste from the proposed project. Large quantities of hazardous and solid waste materials may be generated during the construction, operation, and maintenance of the proposed facility. Develop a hazardous and solid waste material handling, storage, management, and disposal plan that may include the following:

- the sources, types, and volumes of hazardous and solid waste material generated.
- the handling, storage, and disposal of hazardous and solid waste material at the proposed facility.
- a recycling and/or composting program for any clean solid waste material.
- permitted facilities to properly disposal hazardous waste materials. Note the facility should be approved and certified to accept hazardous waste material.

Oil Spill Analysis

EPA recommends the EIS include an evaluation of oil spill potential, including a worst-case discharge analysis, in addition to routine oil spill modeling. Includes in the evaluation an examination of potential range of spill sizes, quantify potential frequency of spill, at the facility, in transit and at the marine terminal, and document the extent of the areas that could be impacted by a spill. EPA recommends utilizing conservative assumptions to develop trajectory plots depicting the projected areas of impact over a 72-hour period, using considerations for seasonal weather conditions. The most important considerations for evaluating an oil spill are the potential spill extent and area impacted more than the volume of the spill. Include in the analysis an assessment of the potential impacts of a spill to the environment, particularly hydrology and water quality, and terrestrial and marine biology. Special attention should be paid to the potential impacts to endangered, threatened, and protected species. Include potential socioeconomic and sociocultural impacts in the analysis given the importance of the Columbia River to the communities along its shores (e.g. consider the potential impacts a large oil spill could have to commercial fisheries within the river, and along the marine shipping route).

In addition to evaluating oil spill potential, EPA recommends the EIS include description of oil spill response and cleanup methods (e.g., natural dispersal, dispersants, biological agents, floating devices). When analyzing potential clean-up methods, consideration should be made to biological resource impacts, endangered, threatened, and protected species within the Columbia River and along the marine shipping route.

The nature and frequency of spills should be clearly disclosed for the public and decision-maker.

Decommissioning

EPA recommends that the EIS fully analyze decommissioning of the facility to understand the long-term impacts of the proposed project. Identify parties responsible for decommissioning site management: any additional groundwater and soil contamination identified as a result of decommissioning activities or taking equipment offline would be required to be remediated and managed.